1: Underhill E-5 (1931-1935)1946 NU28 Papago NU28

825 The writer did not succeed in identifying the birds eligible for this ceremonial killing. Almost every variety of hawk and eagle can be seen at some time in southern Arizona, either as migrant, winter visitor, or a year-long resident. However, the usual hunting time was in summer, when those most commonly found are [34] the golden eagle (*Aquila chrysaetos*), Swainson's hawk (*Buteo Swainsoni Bonaparte*), western red-tailed hawk (*Buteo borealis caluris*), and zone-tailed hawk (*Buteo abbreviatus*). The Papago said that all eagles gave power but not all hawks. In general the hawk was the younger brother of the eagle, not so important, but able to fly faster. He was the guardian spirit of runners, while the eagle was sought by the would-be shaman.

223 There was no ownership of nests, and the writer heard of no trapping ritual. The method most often mentioned was to shoot an adult bird when it was heavy after having eaten and therefore unable to fly.

223 825 However, some of the songs speak of captive eagles, so trapping may have been practiced also. The act which gave power was the final plucking of feathers from the dead body. Every one of these had its purpose: the wing feathers as shaman's divining plumes, breast feathers as offerings and means to rain magic, tail feathers for war arrows. He who had plucked them and received his feather trophy, had all the honors of a "ripe man."

223 783 This exploit was easier than the war party or the salt pilgrimage, and the purification, too, was less strenuous. In some places it was reduced to only four days, and the relatives of the neophyte were not affected at all.(5) At present, when war has ceased, and the salt pilgrimage is performed by only a few villages, eagle killing is the chief means to supernatural power. The writer saw two houses bearing the tuft of eagle down which means that the purification of a killer is in progress.

223 708 The man who planned this exploit selected his guardian just as other power seekers did. He also selected some sheltered spot, far from the house, where he would pass his period of purification. Having killed his bird, he did not return to the house, but signaled from a distance, and the guardian, who was watching, came out to him. The first task was to pluck the eagle. The guardian did not

1: Underhill E-5 (1931-1935)1946 NU28 Papago NU28

touch the feathers himself, since they were not yet purified and therefore dangerous, but he pointed with a stick to show in what order they should be pulled and laid down.

The killer stretched the eagle out on the ground and stood on its wings. First, under the guardian's direction, he pulled out the down feathers, which had special value as offerings to the supernatural and would become his own perquisite. He first took the down from under the right wing, then from the left, then from under the tail, from the back, and from inside the legs. That from under the tail, which is particularly soft, he tied to a stick, in the manner of a prayer stick. This he stuck upright in the ground beside him during the period of his seclusion, while the rest of the down was placed in a buckskin bag to await purification.

The next feathers to be plucked were the two top wing feathers, one from the right wing and one from the left. It was these top feathers, and no others, which were used as shaman's divining plumes. They had a special name, *mdtcuita'k* (that which finds out). They were the perquisite of the guardian, who, if he were not a shaman himself, might keep them for trade at a high price. The plume from the right wing was laid down first, with its tip to the east, then that from the left, crossing it, with tip to the south. After them the other plumes were plucked alternately from the two wings and laid down in regular order, so that a cross was formed with wing tips pointing north, east, south, and west.[2] Above the wing feathers the tail feathers were laid, continuing the cross formation. The feathers were then covered with a mat or buckskin weighted with stone, and the killer took his place beside them for his sixteen days of purification. Until this period of quarantine was over, no one but the guardian must approach him and no one at all must touch the feathers, on pain of illness.

The details of purification differed in different localities, as they did with enemy slayers and salt pilgrims. Some villages considered this contact with the supernatural so much less important than the others that they made the retreat only four days.(5) Others, like Kaka, used a graduated form of retreat in four periods of four days each.

[2] The usual Papago circuit is counterclockwise. The informant could give no reason for the change in this case.

1: Underhill E-5 (1931-1935)1946 NU28 Papago NU28

223 783 days each. The first period was passed at some distance from the house, then the neophyte took a cold bath and moved nearer, until at the last period he was just outside his home.

The general rules for his behavior were the same as those for the warrior and the salt pilgrim.

223 783 787 During his seclusion the eagle killer, like the other neophytes, gained power in two ways. His guardian taught him what eagle songs he himself knew, to be used in the priestly function of purifying other eagle killers. But also the young man expected to dream. The spirit of the dead eagle would come to sit beside him and, acting as a guardian spirit, would impart to him various sorts of useful information which would help in his future career. Such information might lead in any direction, and many young men whose propensities had not yet shown themselves chose this easy form of contact with the supernatural as a means of determining their life work. The experience could be repeated until satisfactory results were obtained. Though it was not thought right to kill more than one eagle in one year, a boy might continue killing and dreaming every year until he had the power he wanted.

One man, known to the writer, killed four eagles in four successive years. During his first seclusion he dreamed directions for making a set of gaming sticks, with the assurance that he would always win. In the next two periods he dreamed a series of songs which made him especially potent as a purifier of eagle killers. It was only during his fourth period that the eagle spirit sang him songs which led to a career of shamanism. Other men, who had killed only one eagle, dreamed of success as runners, hunters, or fighters.

223 783 When the period of seclusion had passed, the guardian of the eagle killer summoned singers for the purification ceremony. In old days these were men who had themselves killed eagles and had learned the songs from their guardians, with possible additions through dreaming. In recent years, when eagle killers have been few, anyone who has managed to learn some songs is invited. The singers arrived at night and took their places in a circle, without fire. The eagle killer, if it were his first eagle, sat at the south side of the circle, with the guardian at his right. For his second eagle,

1: Underhill E-5 (1931-1935)1946 NU28 Papago NU28

he sat at the west, for his third at the north, and only for the fourth could he sit at the east. 223 783

The singers squatted in silence, until finally the guardian took the prayer stick from beside the eagle killer and, holding it in his hand, sang the first song. When he had finished, he passed the prayer stick over the body of the eagle killer, placing it first on his head and then stroking downward over his body. With each stroke, he blew outward, wishing for the eagle killer the same kind of success in life which he himself had had.

He then passed the prayer stick to the man at his right, and so it went counterclockwise around the circle, each man singing four songs and stroking the killer with the prayer stick. Some of the good luck auguries made at this time are quoted from an actual ceremony. 223 783 779

By a deer hunter.

1. Hail! Thus I do to you. Thus you will do in the future. A little way off stands a mountain. You will follow [tracks] around it; you will kill some game; you will feed yourself. Thus do I, as a good hunter, follow my game. I go forth in the morning; I kill my game; I feed myself.(16) 223 783 779 539x

By a runner.

2. Hail! Thus I do to you. You will be like me. I am so fast a runner that if anyone ever catches me I will give him all I have.(16)

By a hunter.

3. Hail! Thus I do to you. Thus you will find yourself doing. Thus I do. The flat land lies stretched out wide. I follow [tracks] across it. I walk and walk. I kill game. I eat it.(16)

When each man in the circle had sung four songs and had performed his act of purification, a cigarette was made by any man who had brought tobacco and was passed counterclockwise, each man receiving it from his neighbor with the kinship term and giving four puffs. The singing then proceeded as before. No one must sleep or go home until morning. Singers might rise and leave the circle, but the eagle killer must remain in position—upright, with legs straight before him, arms folded and head bowed. 223 783 [276] [516]

1: Underhill E-5 (1931-1935)1946 NU28 Papago NU28

Eagle songs which have the correct form are always in two verses, the first dealing with the eagle, the second with the hawk. A singer goes through both verses, then repeats the whole four times. Of the songs quoted below, two are from the origin myth and describe I'itoi's adventure.[2] A few others are part of an old cycle, of which the beginning and ending songs are noted. The ending song, however, has no distinguishing characteristic, and apparently its use as a finale was a matter of habit, not logic. The others form a cycle dreamed by a modern eagle killer in the order given.

I'ITOI'S SONGS

4. I feel myself great.
They ask me to kill the eagle.
Near Ventana Mountain
I lie.

I feel myself great.
They ask me to kill the monster woman.
Near Poso Verde
I stand.(19)

5. I am very great,
Therefore they told me
To kill the eagle.
From Iolikam I descend;
As a great man I sing.

I am very great,
Therefore they told me
To kill the eagle.
From O'otkam I descend;
Beneath it I sit,
And as a great man I think.(16)

OLD CYCLE

INITIAL SONG

6. The eagle taught me
The use of a bow.
Then I made a beginning.

[2] For Pima eagle songs see Russell, pp. 277–78, 289, 291–92, 306.

1: Underhill E-5 (1931-1935)1946 NU28 Papago NU28

223
773
539

The hawk taught me
The use of an arrow.
Then I made an end.(16)

7. I was drunk.
The wind blew hard.
(Archaic words)
Across a flowerless place
Of many winds
It took me.(16)

8. Reed Mountain stands up toward the west.
There an eagle cries;
The flat land resounds.

Baboquiviri stands up toward the east.
There a hawk cries;
The mountains echo.(16)

SONG OF A FEMALE EAGLE

9. Did you not treat me ill?
My beautiful child you took.
I am anxious;
All night I scream.(16)

FINAL SONG

10. A black-headed eagle
On a low rock
Flapped its wings.

A white-headed hawk
On a low rock
Descended.(16)

CYCLE DREAMED BY A MODERN EAGLE KILLER(16)

11. Eagle bird!
When he alights
There is a sound of thunder.

Hawk bird!
When he perches
There is a sound of lightning.

1: Underhill E-5 (1931-1935)1946 NU28 Papago NU28

250
223
783
1539

EAGLE KILLING

12. Your feathers,
Eagle, my older brother,
Like a bow
In every direction, wavering, I throw.

Your down,
Hawk, my younger brother,
Like an arrow
In every direction I let fly.

A caged eagle speaks.

13. Eagle, little bird
In a circular shelter!
Under it he walks about.

Hawk, little bird
In a narrow shelter!
Under it he walks about.

14. In front of a black mountain
Eagle feathers are blowing about.

In front of a white mountain
Hawk feathers are blowing about.

15. Eagle, my older brother,
Like a bow, in every direction
I bend your long feathers.

Hawk, my younger brother,
Like arrows, in every direction
I let loose your down feathers.

16. Under the west
Many roads cross each other.
Beside them I see Eagle,
My elder brother.

Toward the east
Many roads cross each other.
Beside them I see Hawk,
My younger brother.

1: Underhill E-5 (1931-1935)1946 NU28 Papago NU28

223
783
539 x

17. I lay on the ground;
A man came.
What will he do to take me?

18. An eagle is walking;
Toward me it is walking.
Its long feathers blow in the breeze.

A hawk is running;
Toward me it is running.
Its down feathers ruffle in the wind.

19. On a rocky mountain
An eagle flaps his wings.
There I flap with him.

On a yucca-clad mountain
A hawk ruffles his down feathers;
There I ruffle with him.

An eagle speaks.

20. On a black rock I lit.
My beautiful long feathers
Are cut.

A hawk speaks.

On a white rock I jumped.
My beautiful white down feathers
Are rumpled.

An eagle speaks.

21. I died and lay here.
I got up and looked upon the ground;
The ground lay stretched out green.

A hawk speaks.

I fell and lay here.
I got up and looked upon the mountains,
The mountains stood up yellow.

The songs were over at dawn. The guardian handed the prayer stick to the eagle killer and directed him to go and take a cold

223
783
515

1: Underhill E-5 (1931-1935)1946 NU28 Papago NU28

223 773 515 bath, after which his ordeal would be over. Then the guardian distributed the remaining eagle feathers to the singers, who might use them for arrows or for trade.[4]

[4] Eagle killing is still practiced by individuals scattered over the reservation.

5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NU28
Pima NU29

being rather extensively utilized. An early reference[103] characterizes the Papago as living on seeds, grass, rabbits, rats and wild fruits.

A few birds were included in Piman diet, Gambel quail *(Lophortyx gambelii)* providing the main source of supply, with the abundant western white-winged dove *(Melopelia asiatica mearnsii)* and the mourning dove *(Zenaidura macroura marginella)* also ranking high. The only eggs utilized were those of the Gambel quail. Merriam turkey *(Meleagris gallopavo merriami)* was to be found more plentifully in the mountains formerly than at present, but was hunted only occasionally and then mostly for feathers rather than food. It was not domesticated, although Velarde[104] noted this would not have been difficult. Russell makes no reference to the use of turkeys by the Pima. Velarde relates that in Pimería there were countless turkeys in the mountains. In the same connection he states: "In some places are found thousands of birds *(pavos o gansos)* which are called chickens of the Indies, large and fat and of pleasant taste."[105] These, too, unquestionably were turkeys.

Highly prized as food by both peoples, but more especially by the Papago, were the larvae of the very common lined sphinx moth *(Celerio lineata)* which is two and one-half to three inches long. These caterpillars occurred in great numbers in limited areas on any vegetation, especially amaranth *(Amaranthus Palmeri)*, during or immediately following the rainy season. With their appearance everyone dropped work to gather this great delicacy, which was dried and stored. This is what Garcés[106] referred to, when on a journey from Tubac to San Gabriel he noted the Papago ate

[103] *Documentos*, 3rd ser., IV, 554; *Rudo Ensayo*, p. 192; Hrdlicka, *op. cit.*, p. 24.

[104] Mange, *op. cit.*, pp. 309-10; Wyllys, *op. cit.*, pp. 189-90.

[105] Mange, *loc. cit.*; Wyllys, *loc. cit.*

[106] Bolton, *op. cit.*, p. 320.

5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NU28
Pima NU29

planted at San Xavier. Squash bugs were fairly common but the only attempt at control was sprinkling ashes on the vines, probably not an aboriginal practice. Cut worms gave little trouble, so nothing was done about them. Rabbits usually came at night and caused some damage; at times the Pima attempted to drive them out of the fields with arrowweed firebrands, but with indifferent success. Papago usually planted their chick peas and lentils in the middle of a wheat field to protect them against rabbits, otherwise these were damaged considerably. When corn began to come up, birds, especially blackbirds and doves, ate the young seedlings, so boys and girls were sent into the fields to drive them away, usually in the morning and evening. There was no watcher's stage. Children protected plants particularly when they were coming up and again when the crop was ripening. On the Gila, quail have caused considerable damage to pink beans by eating the blossoms, although the desert Papago were little bothered in this respect. Various birds ate the young pods of cowpeas. After the coming of the Spaniards, an interesting [223] method of controlling birds that were especially annoying in digging out planted corn grains or seedlings was to tie one end of a horse hair to an earthworm, the other to a stick. When the bird swallowed the worm it found itself unable to escape, was captured and killed.

Pima and Papago native maize was, and still is, little troubled with corn smut. Rust on wheat and barley sometimes was observed; Pima informants knew it was not spread as the result of irrigation, but often became worse in rainy, cloudy periods. There was little remedy for this except to pull up badly infected plants or burn the stubble to prevent spreading. Rusty wheat was cleaned of much of its rust just before using by washing in watertight baskets. The grain was placed in the basket with water and rubbed by hand, the water being changed when dirty. This was woman's work. Aphis was an annoying pest on watermelons and muskmelons. Ants, too, did considerable damage to young wheat plants, particularly

17:Castetter & Underhill N,E-5 (1931-1934) 1935
NU28 Papago NU28

This stuffed head was fastened on top of the hunter's 224
head with buckskin strings. Two pieces of buckskin were worn over the body to the knees, the one in front which came above the chin being white to imitate the deer's belly, while that in the rear was blackened with soot to make it look like the deer's back; the arms and legs were smeared with white clay. In hunting the Headbearers wore the disguise and walked on all fours, rubbing against bushes and imitating the sound of female deer, and thus could get within easy shooting distance.

The deer meat was usually cut into thin strips and sun- 251
dried on the spot. The tendons were carefully cleaned and 237
kept, the long black tendons for bowstrings, the shorter ones for fastening foreshafts. The brains were kept for tanning and the hide folded up to be used as described elsewhere in this paper. The fat was used to mix paint and for greasing the body.

Arizona white-tailed deer, found in the mountains, was 224
also stalked in disguise. The antelope was much more rarely hunted. Bear *(Ursus americanus)* seems never to have been hunted by the Papagos.

The mountain sheep has for a long time been found only in a few inaccessible mountain slopes and canyons. Once, however, it must have been plentiful, as the Spaniards in the early eighteenth-century found on the Gila a midden heap of six thousand horns of animals, deer, and mountain sheep (18). Later Anza (4) found such piles in the western desert. Only an old Sand Papago from Sonora, however, had any recollection of mountain sheep hunting.

Turkeys were usually shot with arrows when they were 223
roosting but seem to have been used only for their feathers, 224
never for food. Coyotes *(Canis lestes)* were also sometimes shot. Although nothing was learned of the utilization of the peccary *(Pecari angulatus)* as food its seems reasonable to suppose that the Papagos did eat this animal since it was commonly eaten by their neighbors, the Pimas.

17:Castetter & Underhill N, E-5 (1931-1934) 1935
NU28 Papago NU28

Gambel quail was the most important food bird. It was trapped in a very rough cage of split giant cactus ribs *(Carnegia gigantea)*. Mourning doves might also be caught in it though these were usually shot with arrows when they were roosting at dusk; they are still hunted and used as food. No bird eggs were ever used.

REPTILES AND WORMS

The desert tortoise *(Gopherus agassizii)*, known as *komaktcï'ṭ*, was not hunted but people seeing one would take it home and cook it for food.

The worms used were, when young, about an inch long and yellow, but they matured in a few days and turned green. They appeared in quantities just after or during the rainy season on any green growth, especially the amaranth *(Amaranthus palmeri)*. Everyone dropped work to gather them, for they were considered a great delicacy.

DOMESTICATED ANIMALS

The Papago pets in the old days were dogs *(Canis familiaris)* and a few species of birds. Dogs were used to guard the houses, rarely for hunting. The breed was a small white one, in build like a coyote *(Canis lestes)* but with softer fur and only half the size. Coyotes were kept as pets if captured young.

Arrow feathers were obtained from a species of hawk *(Accipiter* sp.), and these were housed in wicker cages and fed with rats and lizards. The tail feathers were pulled whenever they grew long enough. Spanish accounts speak of a number of macaws *(Ara* sp.) being kept for their feathers at San Xavier (27), but this being before Papago occupancy there is no tradition of it.

Father Kino (3) at the beginning of the eighteenth century distributed droves of horses *(Equus caballus)*, cattle *(Bos taurus)*, sheep *(Ovis aries)*, and goats *(Capra hircus)* to all his missions and to many villages where he hoped to establish missions later.

222
178 The collecting and preparing of these plant foods was time-consuming and required a specialized knowledge of their potentialities with the result that their use is gradually disappearing. Nevertheless, some of these wild foods will continue to contribute a minor part of the diet for some time to come.

136 In contrast to the variety and relative importance of wild plant sources of food, the desert offered only a
224 sparse animal life for economic exploitation. Before the introduction of horses and cattle, the mule deer was much more abundant and widespread and was the chief game animal of the Papago. Of less importance were the white-tailed deer, the antelope, mountain sheep, and the peccary or javelina. Small animals were also hunted, particularly the jackrabbit, the cottontail rabbit, and the packrat. Game
[223] birds, such as the quail and dove were also important. In general, hunting of larger animals was an occupation only occasionally indulged in by a few men; other animals were hunted more systematically, but hunting was always a relatively minor activity for the Papago. The small scale of more recent use of faunal resources is indicated by the fact that, during World War II, "due to the wartime price of fur, eight whites and two Papagos . . . (were) engaged in trapping and making considerable money at it" (Program, Papago Reservations, 1944, p. 15).

3: Whited G-5 (1890) 1894 NT15 River Yumans
Papago NU28

241 GRAIN.—The roving Papagos, those living off the reservation, raise only grain enough, principally wheat and corn, for their own use. Squashes, melons, and sugar cane make up the list of their common crops. Cultivation with them consists in scratching the ground with their stick plows and planting the seed. They pay no attention whatever to weeds. They incline small fields of fertile ground in the mesas with brush fences and then plant after a rain at the right season. If it rains in November, they plant wheat. Rain in December will insure a good growth of straw, but rain in February will be necessary to mature the berry. The failure of rain in any of the 3 months will prevent planting or about ruin the crop which has been started. Owing to the uncertainty of propitious rains they obtain crops, apart from irrigation, only about once in 6 years.

Their wheat is white, a short, plump berry, of remarkably good quality. In the off years they resort to the reservation, raise a little grain, and "pack" it to their villages. Corn, squashes, sugar cane, and melons are raised after the summer rains.

252 412 They grind grain on an inclined stone, called a metáte, using a smaller stone, about the size of a brick, called a mano, as the crushing power. A handful of whole grain is placed at the top of the metáte, a part of it is scattered over the surface of the stone with a dexterous flirt of the hand, and it is then powdered by two or three energetic rubs with the small stone. The whole process resembles that of washing clothes with a washboard. The flour is caught in a bowl as it falls from the metáte, is clean and free from grit, and contains all the nutriment of the grain.

272 252 [234] Parched wheat, when ground in this manner, is mixed with water, forming a palatable drink, called penole. Corn is never ground raw, but after it has been boiled, and the meal is pressed and rolled up in soft corn husks and forms their bread for journeys. It is superior in taste, in my judgment, to any kind of corn bread made by the whites. They manufacture a kind of cheese from milk, but have no process for butter making.

231 STOCK.—The Papagos have small herds of stock and droves of horses. These constitute their substance, but each possessions can not be large in view of the uncertainty of water. Nearly every family has a few fowls. Their wants are few, and these are easily satisfied. They are self-supporting, and no charge on the government for either food or clothing.

493 An occasional farm wagon was found in a village, but in Ki-ki-vah there were 4. This village is about 90 miles from Tucson and 10 from the Mexican line.

224 [439] GAME.—Various species of deer abound, and in season the markets of the whites are supplied with venison by the Indians. Mountain sheep and goats are also brought in by them, but in less numbers than deer. Black and cinnamon bears are occasionally killed. The cotton-tail rabbit abounds, and is in demand for the table. The flesh is white, and fully equal to chicken in delicacy of flavor. Dangerous wild animals are also killed by the Indians in considerable numbers. The most formidable of these is the mountain lion. This animal destroys young stock, and is therefore hunted with zeal by the Papagos. The pelts possess a trifling value. The wildcat and civet cat are very numerous. The coyote, fox, jack rabbit, and skunk make up a group of animals which are pests, though not dangerous ones. The jack rabbit is sometimes used for food.

223 BIRDS.—Among the birds useful to Indians are the quail, dove, mocking bird, and cardinal bird. These are trapped with great success by them, the quail and dove for food, the others for household pets, their sale forming quite an income. Hawks, owls, and crows abound. Wild ducks, geese, bittern, heron, and snipe are killed in their migration back and forth between Mexico and California. It will be seen that the Indians have many food resources on wing and foot, valuable for consumption or sale.

342 333 DWELLINGS.—No tents are used among the Papagos, and about two-thirds of the houses are made of adobe, the rest being constructed of mud and brush. They consist of but one room, and have dirt roofs laid on rafters of small trees. There is no uniformity as to the size of the houses. The adobe bricks are made in an open frame of four compartments from a gray mud or clay mixed with short cut straw or hay. This mold is placed upon the ground, filled with the soft adobe, packed firmly, and then the frame or mold is removed and the brick left to dry. The usual size of a brick is 4 by 9 by 18 inches.

[358] The Papagos are cleanly in their habits. They sweep the dirt floors of their houses, and in some cases the ground around them. No vermin of any kind was found in any of their houses.

291 [177] CLOTHING.—The men wear boots or shoes, pants and shirts, and straw or felt hats. A canvas jacket is worn on cool days or on a journey. The women wear shoes, stockings, and skirt, and waist blankets are quite common with both sexes, with the women serving as shawl and head covering. The women sew nicely by hand, using thimbles. They also use sewing machines, of which there were three in Ki-ki-vah.

181 [548] [595] MORALS.—The men were generally represented to me to be truthful and honest and the women to be virtuous. Prostitution is said to be unknown among them. This may be due to the fact, as some claim, that wives are taken and abandoned at will. Occasionally a man was found with 2 wives.

Their honesty was tested in various ways on our trip. The outfit of 2 wagons was left unguarded for a whole day when we made the trip from Tecolote to Fresnal and neighboring villages, and not a thing was disturbed. Twice after we left villages forgotten articles were brought to us by men on horseback. These articles would not have been missed, and might have been kept by them with perfect impunity. The Papagos are not addicted to

000